



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,652	11/16/2001	David J. Green	0325.00488	2156

21363 7590 11/20/2003

CHRISTOPHER P. MAIORANA, P.C.  
24025 GREATER MACK  
SUITE 200  
ST. CLAIR SHORES, MI 48080

EXAMINER
----------

EHICHIOYA, FRED I

ART UNIT	PAPER NUMBER
----------	--------------

2172

DATE MAILED: 11/20/2003

5

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/992,652

Applicant(s)

GREEN ET AL.

Examiner

Fred I. Ehichioya

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) 11 - 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### **DETAILED ACTION**

1. Claims 1 – 20 are pending in this office action.

#### ***Answer to Arguments With Traverse***

Where the initial requirement is traversed, it should be reconsidered. If, upon reconsideration, the examiner is still of the opinion that restriction is proper, it should be repeated and made final in the next Office action. (See MPEP § 803.01.)

Applicant's election with traverse of claims 1 – 10, Group I in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the examiner has not presented objective evidence or appropriate explanation for conclusory statement that Group I has separate utility from Group II.

This is not found persuasive because Inventions in Group I and Group II are distinct. The extracting error detection acquires a separate searching area in class 714/725. While the storing and generating programming items of a file is classified in class 707/200.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 - 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,730,348 issued to John E. MacCrisken (hereafter "MacCrisken") in view of U.S. Patent 6,487,709 issued to Eric R. Keller (hereinafter "Keller").

Regarding claim 1, MacCrisken teaches a method of generating a file suitable for programming a programmable logic device, the method comprising the steps of:

(B) compressing said programming item to present a compressed item (see column 5, lines 59 – 67);

(D) storing said compressed item in a non-programming field of said file in response to compressing (see column 4, lines 62 – 67).

MacCrisken does not explicitly teach (A) generating a programming item from a plurality of parameters that define a program for said programmable logic device; and (C) storing said programming item in a programming field of said file in response to generating.

Keller teaches (A) generating a programming item from a plurality of parameters that define a program for said programmable logic device (see column 4, lines 48 – 65 and column 5, lines 1 – 24; "inputs are parameters – see Abstract"); and

(C) storing said programming item in a programming field of said file in response to generating (see column 4, lines 15 – 17; Keller discloses “programming bits as programming items”).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify teaching of Keller with the teaching of MacCrisken wherein the stored programming bits are used in the configuration of programmable logic device. The motivation is that these bits level could be written in many different programming languages.

Regarding claim 2, Keller teaches the step of storing at least one of said parameters in a second non-programming field of said file (see column 5, lines 15 – 17).

Regarding claim 3, MacCrisken teaches the step of generating a dictionary for compressing prior to compressing said programming item (see column 5, lines 61 – 68 and column 2, lines 1 – 12, MacCrisken discloses “Tables as dictionary”).

Regarding claim 4, MacCrisken teaches wherein said dictionary is generated independently of said compressing step (see column 6, lines 57 – 68, MacCrisken discloses “Lookup tables as dictionary”).

Regarding claim 5, MacCrisken teaches said compressing is a Huffman encoding and said dictionary is a Huffman tree (see column 5, lines 65 – 67).

Regarding claim 6, MacCrisken teaches the step of encoding said compressed item from a binary representation to a symbol representation in response to compressing (see column 5, lines 60 – 67).

Regarding claim 7, MacCrisken teaches the step of mapping said symbol representation to a character representation in response to encoding (see column 1, lines 23 – 28).

Regarding claim 8, MacCrisken and Keller teach the claimed subject matter as discussed in claim 1. MacCrisken teaches generating an error detection item (see column 6, lines 39 - 49); and

storing said error detection item in a second nonprogramming field of said file (see column 20, lines 42 – 46).

Regarding claim 10, MacCrisken teaches said steps (A) through (D) are stored in a storage medium as a computer program that is readable and executable by a computer to generate said file (see column 9, lines 23 – 30).

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacCrisken in view of Keller and further in view of U.S. Patent 6,177,892 issued to Eric Ko (hereinafter "Ko").

Regarding claim 9, MacCrisken and Keller teach the claimed subject matter as discussed in claim 8. MacCrisken further teaches the steps of:

decompressing said compressed item to present a backup programming item (see column 6, lines 7 – 14); and

validating said backup programming item with said error detection item (see column 7, lines 61 – 63).

MacCrisken or Keller does not explicitly teach extracting said error detection item from said file; extracting said compressed item from said file;

Ko teaches extracting said error detection item from said file (see column 4, lines 4 – 6);

extracting said compressed item from said file (see column 4, lines 31 – 34);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify teaching of Ko with the teaching of MacCrisken and Keller wherein error detection and compressed data are extracted. The motivation is that the extracted data items are used in synchronizing the programmable logic device data output.

**Conclusion**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 703-305-8039. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on 703-305-4393. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-303-3900.

Fred I. Ehichioya  
Examiner  
Art Unit 2172  
November 15, 2003



**SHAHID ALAM**  
**PRIMARY EXAMINER**